

## New locality records for reptiles, including the vulnerable Swamp Skink *Egernia coventryi*, in South Gippsland, 2001 – 2005

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### Abstract

Between 2001 and 2005, surveys of vertebrate fauna in three crown land conservation reserves in South Gippsland were commissioned by Parks Victoria. During these surveys new locality records were obtained for several species of small reptiles, including the vulnerable Swamp Skink *Egernia coventryi*. Incidental records were also obtained from local residents during this period, resulting in one new locality record for the Swamp Skink and two other species that had not previously been recorded in this part of southern Victoria. Habitat preference of the Swamp Skink is discussed. (*The Victorian Naturalist* 123 (5), 2006, 335–338).

### Introduction

During 2001, a reptile and amphibian survey of the Wonthaggi Heathland Nature Conservation Reserve was commissioned by Parks Victoria, results of which have been published in this journal (Homan 2003). Over the following four years further surveys of reserves in South Gippsland were commissioned by Parks Victoria.

In 2002, a survey of the vertebrate fauna of the Bunurong Coastal Reserve was carried out. This reserve is located approximately 115kms south east of Melbourne, between Cape Paterson and Inverloch.

In 2003, a survey of the vertebrate fauna of part of the Kilkunda-Harmers Haven Coastal Reserve was carried out. The section of this reserve surveyed was formerly known as the Harmers Haven Flora and Fauna Reserve and adjoins the western end of Bunurong Coastal Reserve at Cape Paterson and extends along the coast for approximately four kilometres to the eastern boundary of the Wonthaggi Heathlands.

During 2004 and 2005, staff and students from the Department of Applied Science, HolmesGlen Institute of TAFE, carried out vertebrate surveys of sites in the Wonthaggi Heathland Nature Conservation Reserve that had been subjected to ecological burning.

Over this five year period several local residents also provided information that produced new locality records for several species of reptiles.

### The species and localities

#### *Swamp Skink Egernia coventryi*

*Wonthaggi Heathland Nature Conservation Reserve*

During the 2001 survey of this reserve a new locality record for the vulnerable Swamp Skink was obtained (Homan 2003).

#### *Bunurong Coastal Reserve*

A feature of this reserve is a series of rocky headlands that enclose small, sandy coves. In one such cove twenty Elliott traps (small size, Type A) were set in October 2002, principally to survey the presence of small mammals. Traps were baited with a mixture of peanut butter, 'quick' oats and honey. They were set behind a primary sand-dune, less than twenty metres from the high tide mark, at the base of a cliff. Traps were set over three days and nights (60 trap-nights) and were left open for daylight sampling, which resulted in the capture of a Swamp Skink on 10 October 2002. The site was visited again in November 2002 (using the same survey method and effort) and a further capture of a Swamp Skink occurred on 27 November 2002. Both captures measured and weighed the same (Table 1) and both had a regrowing tail, so it is assumed that this was the same animal.

The vegetation at this location consisted of Spreading Flax-lily *Dianella revoluta*, Knobby Club-sedge *Isolepis nodosa*, Coast Sword-sedge *Lepidosperma gladiatum*, Coast Tussock Grass *Poa poiformis*, Seaberry Saltbush *Rhagodia candolleana*,

**Table 1.** Details of Swamp Skinks recorded in Bunurong Coastal Reserve and Kilkunda-Harmers Haven Coastal Reserve, in 2002 and 2003. \* indicates regrowth tail.

Location	Date	Snout-vent length (mm)	Tail length (mm)	Weight (gms)
Bunurong	10 Oct. 2002	95	95*	23
Bunurong	27 Nov 2002	95	95*	23
Harmers Haven	12 Feb. 2003	80	120	13
Harmers Haven	12 Feb. 2003	105	115	30
Harmers Haven	12 Feb. 2003	65	57*	9
Harmers Haven	17 Nov 2003	107	115	30

with some Austral Bracken *Pteridium esculentum*, Ross' Noonflower *Carpobrotus rossii*, Common Reed *Phragmites australis*, Coast Daisy-bush *Olearia axillaris* and Coast Beard-heath *Leucopogon parviflorus*.

#### Kilkunda-Harmers Haven Coastal Reserve

During this survey two pitfall lines were established in low-lying areas behind tertiary sand-dunes approximately 1.3 kilometres apart. Both pitfall lines consisted of ten, twenty-litre plastic buckets, spaced at five metre intervals, with a 30-centimetre-high aluminium flywire drift fence, over a distance of 60 m. The first pitfall line was in vegetation that was largely weed-free, with Coast Sword-sedge, Strand Sedge *Carex pumila*, Coast Tussock Grass, Bidgec-widgee *Acaena novaezelandiae*, some Austral Bracken and Coast Banksia *Banksia integrifolia* and a small infestation of Sweet Vernal-grass *Anthoxanthum odoratum*. The second site was in a more disturbed area, which had been a public campsite until it was fenced off about ten years previously. Vegetation at this site consisted of large areas of Sweet Vernal-grass, with some Spear Thistle *Cirsium vulgare*, Coast Tussock Grass, emerging Swamp Paperbark *Melaleuca ericifolia*, Coast Tea-tree *Leptospermum laevigatum* and Coast Wattle *Acacia sophorae*.

During the first trapping session on 12 February 2003, three Swamp Skinks were captured in the first pitfall line, and on 17 November 2003 one Swamp Skink was captured in the pitfall line at the disturbed site (Table 1).

*Private property approximately 8 kilometres south-west of Koonwarra.*

In late 2003, D and D Drummond, the owners of a property approximately eight



**Fig. 1.** Swamp Skink *Egernia coventryi* on mulch under pear tree.

kilometres south-west of Koonwarra, reported seeing fairly large skinks basking at several locations on their property. On 18 November 2003 I visited the property and found two Swamp Skinks, one basking on the trunk of a fallen Swamp Paperbark, amongst weeds, beside a dam, and another on mulch, under a pear tree in a small orchard (Fig. 1). The property was visited again on 28 January 2004, when another Swamp Skink was found under an old polystyrene surfboard lying on weeds beside the dam.

#### Tree Dragon *Amphibolurus muricatus* Wonthaggi Heathland Nature Conservation Reserve

No records of this species were obtained during the reptile and amphibian survey of this reserve in 2001 (Homan, 2003). However, on 11 October 2002 Ms Terri Allen, of Wonthaggi, visited the reserve and observed a Tree Dragon basking on a fence post.

The site was visited two days later on 13 October 2002, with Mr Steve Darby of Yarram, when the Tree Dragon was located again, captured by hand and

photographed. Prior to this, no records for this species were available for this reserve or the Wonthaggi district (Atlas of Victorian Wildlife database). On 14 November 2003 Terri Allen also found a road-killed Tree Dragon on a public access track in this reserve.

#### *Kilkunda-Harmers Haven Coastal Reserve*

On 19 November 2003, the last day of the survey of this reserve, a juvenile Tree Dragon was caught by hand near the pitfall line located at the disturbed site mentioned above. Prior to this no records were available for this species in this reserve (Atlas of Victorian Wildlife Database). This species is readily captured in pitfall traps (FNCV, RMIT University unpubl. data); yet, despite 1327 pit-nights being completed throughout these reserves between 2001 and 2005, no individuals of this species were recorded using this survey method. This may suggest that the population of this species is low along this section of the Victorian coast.

#### *Black Rock Skink Egernia saxatilis*

*Private property approximately 3 kilometres WNW of Inverloch*

During early 2005, B and L Teesdale, owners of a property approximately three kilometres WNW of Inverloch, noticed a lizard entering their home. The animal became a regular visitor and was photographed on 25 February 2005. The photograph was forwarded to me by Parks Victoria staff at Wonthaggi and clearly showed the lizard to be a Black Rock Skink. No records of this species were previously available for the Wonthaggi/Inverloch district (Atlas of Victorian Wildlife Database).

#### *Common Blue-tongued Lizard Tiliqua scincoides*

*Wonthaggi Heathland Nature Conservation Reserve*

During October 2005, staff and students from Holmesglen Institute of TAFE carried out a survey of vertebrate fauna in a section of this reserve that was subjected to an ecological burn in May 1992. Elliott traps (Type A) were one of the survey methods used and were left open for day-light sampling on 12 October 2005. During this trapping session one juvenile Common

Blue-tongued Lizard was captured (Snout-vent = 100mm, Tail = 40mm, Weight = 27gms). Bait used was a mixture of 'quick' oats, peanut butter and honey. The Blotched Blue-tongued Lizard *Tiliqua nigrolutea* has been recorded in this reserve (Homan, 2003) and is common in this district (Homan, unpubl. data); however, this is the first available record of the Common Blue-tongued Lizard for this reserve and for the Wonthaggi district (Atlas of Victoria Wildlife Database).

#### Discussion

The Swamp Skink is listed as vulnerable in Victoria and most records are from coastal regions (Atlas of Victorian Wildlife Database). The species generally inhabits low-lying areas, swamp margins, sedge-tussock vegetation and salt-marshes (Cogger 2000; Wilson and Swan 2003).

The records obtained during these surveys from Wonthaggi Heathlands, Bunurong Coastal Reserve and Kilkunda-Harmers Haven Coastal Reserve, are from areas and habitat that are considered typical for this species. However, the habitat and location of Swamp Skink records at the Koonwarra site are very different from those at the other three sites. In particular, it was unexpected to find this species in an orchard close to numerous man-made structures, well away from any low-lying areas.

The Koonwarra property, of about ten hectares, is located in coastal foothills approximately eight kilometres from the coast and is at an altitude of about 90 m. It was a dairy farm before being purchased in 1974 and is heavily infested with introduced weeds, including Sweet Vernal-grass, Yorkshire Fog *Holcus lanatus*, Cape Weed *Arctotheca calendula*, Rib Wort *Plantago lanceolata*, Rats-tail Grass *Sporobolus africanus*, Dandelion *Taraxacum* spp., and some Blackberry *Rubus fruticosus*.

Prior to settlement the property and surrounding areas would have been typical South Gippsland open-forest. Small remnant areas of this forest type survive today along roadsides in the district and in neighbouring properties, and as remnant vegetation in moist gullies. However, no low-lying, swampy habitat that could be considered typical for the Swamp Skink, exists in any nearby areas.



The only native vegetation remaining on the property in 1974 was an isolated area of about two hectares in a moist gully. Vegetation covering half of this area consisted of Soft Tree Fern *Dicksonia antarctica*, Scrambling Coral-Fern *Gleichenia microphylla*, Red-fruit Saw-sedge *Gahnia sieberiana*, Scented Paperbark *Melaleuca squarrosa*, Forest Wire Grass *Tetrarrhena juncea*, and Austral Bracken, with some Blackberry and an overstorey of Blackwood *Acacia melanoxylon*. A small remnant stand of Messmate *Eucalyptus obliqua* and some Narrow-leaved Peppermint *Eucalyptus radiata* survived south of and adjacent to the gully. This gully vegetation remains today and has been allowed to expand through natural regeneration to approximately three hectares. The other hectare consisted of an open area of Common Reed, which survives, upstream and immediately adjacent to the above vegetation.

Swamp Skinks were located about 300 m above the moist gully to the north, near the top of a wide slope. A narrow, road-side verge with Messmate, Narrow-leaved Peppermint and Swamp Paperbark and some Blackberry is located about 150 m north of the area where Swamp Skinks were found. The previous open grazing land now consists of a vineyard, poultry enclosures, an orchard, a vegetable garden, several sheds, a house, several small dams and a large native garden.

At least one previous survey has located the Swamp Skink in habitat considered atypical for this species. Clemann and Beardsell (1999), re-recorded the Swamp Skink in a low-lying site within heathy woodland, during a herpetofauna survey in the Enfield State Forest near Ballarat, in February 1999. During a survey of a reserve in Boronia, in March, 2000, Clemann (2000) also recorded the Swamp Skink from habitat containing an understorey of weed grasses.

Some small reptiles can be unintentionally relocated when firewood or logs are moved between sites. The Swamp Skink, however, usually shelters in burrows (Wilson and Swan 2003) and in any case large logs are not a normal component of swampy areas inhabited by the species, so it is unlikely that Swamp Skinks were acci-

dentally introduced to this property. It therefore appears that Swamp Skinks have survived in the past, in either the remnant moist gully (perhaps in the reedy vegetation) or the roadside verge and have since colonised several areas of artificial and weedy habitat that the species apparently finds suitable.

Clemann (2000) suggests that caution should be exercised when assuming that Swamp Skinks are not present in marginal habitat or areas that appear unlikely to support the species. If Swamp Skinks have survived on this Koonwarra property, then it is possible that other isolated populations of this threatened species may exist in other parts of the South Gippsland foothills.

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